

ABSTRACT OF THE DISCLOSURE

A main optical signal is wavelength-multiplexed with an optical identifier which is different in wavelength from this main optical signal, before a wavelength-demultiplexing is
5 take place at a desired point so as to isolate the optical identifier from the main optical signal
for the purpose of monitoring establishment of correct or incorrect transmission route
between transmission and receiving sides based on the detected optical identifier with
reference to the stored corresponding data to the relationship between the main optical signal
and the optical identifier which belongs to the main optical signal, wherein the monitoring is
10 made without any photoelectric conversion of the main optical signal and any deterioration in
quality of the main optical signal.